

REMARKS

Reconsideration of the present application is respectfully solicited.

In the presently claimed invention, a disc saw blade includes a saw chain designed to be disposed loosely on the circular disc, i.e., wherein there is play between the saw chain and the disc in the circumferential direction and in the radial direction. Looseness is mentioned in original claim 1, and the looseness and play are apparent from Fig. 2 of the drawings. Such looseness enables the saw chain to be installed on the disc easily and without being pre-tensioned. Consequently, during operation of the of the saw, the tension imposed on the chain by the drive forces is not augmented by pre-tensioning forces.

Claim 1 recites that feature, namely that in the neutral (non-driven) position or condition of the disc, the saw chain is loosely mounted on the disc to provide play in the circumferential and radial directions.

Claim 1 stands rejected over Carlton, which does not disclose an arrangement in which there is play between the saw chain and the disc in the neutral state of the disc. Figures 1, 2, 4 and 5 of Carlton show an absence of play, and the description teaches away from play at column 4, lines 31-36. To achieve the condition shown in Fig. 1, the saw chain will be in a pre-tensioned condition, because achieving a state where the surfaces of the projecting parts 28 or 78a lie flush with the surfaces of the groove 18 is virtually unattainable without pre-tensioning the chain, due to normal dimensional tolerances of the parts. Hence, pre-tensioning is common in the art. When the disc is then driven, causing the projecting parts of the already-tensioned chain to slide up on the surface of groove 18 or 74, the chain will be further tensioned and stretched, creating the risk of breakage of the

chain. Carlton acknowledges that risk at column 7, lines 17-30, and purports to deal with it, not by eliminating pre-tension as in the present invention, but rather by an arrangement depicted in Fig. 5 wherein the anchoring links 78 are provided with catch portions 88 that become situated in underlying relationship to catch portions 86 provided on the sprocket teeth of the disc 70. When the blade is rotated, engagement between the catch portions 86, 88 prevents radially outward movement of the chain, as explained at column 4, lines 7-16.

In the Official Action, it is asserted that Carlton's chain is in a loose condition (pg. 4, lines 5-6 of the Official Action), but there is no support anywhere in the Carlton patent for the contention that looseness exists, or that play is provided in the radial and circumferential directions when the disc is in a neutral (non-driven) state.

Furthermore, the Official Action, on page 4, lines 15-19, asserts that:

As 78a portion of the driving link fits into the gulley area 74 of the disc 70, it is apparent and inherent that area of the portion 78a is smaller. Hence, the R_{id} , distance of the bottom portion of 78a to the center of the disc 70, is greater than the R_{sb} , the distance of the bottom (valley) portion of the gulley 74 with respect to the center of the disc 70.

Applicant disagrees with that assertion. As clearly depicted in Carlton, the surface of the projecting part 28 or 78a lies flush against the surface of the groove 18 or 74. Where those surfaces contact one another, a common interface is formed. The radial distance of that interface from the disc axis defines the distance between the disc axis and each of the contacting surfaces. Stated another way, if one were to travel along a radius from the disc's center toward the surface of the groove 74 and arrives at that surface, one would simultaneously arrive at the surface of the projecting part 78a because those surfaces touch one another.

For the above reasons, it is submitted that claim 1 distinguishes patentably over Carlton.

Claim 10 has been reworded to emphasize the difference over the Bueneman '348 patent. Bueneman refers to "gang-saw assemblies" which involve multiple discs on a shaft, not multiple grooves in one disc as recited in claim 10. Bueneman's discs would be disposed in a common groove. Accordingly, an artisan would be taught by Bueneman to arrange multiple saw chains on respective separate discs mounted on a common shaft. Claim 10 should be allowable over the art cited thereagainst.

Claim 11 has been amended to overcome any indefiniteness therein. Clearly, the structure recited by that claim is not disclosed in Carlton.

In light of the foregoing, it is submitted that the application is in condition for allowance.

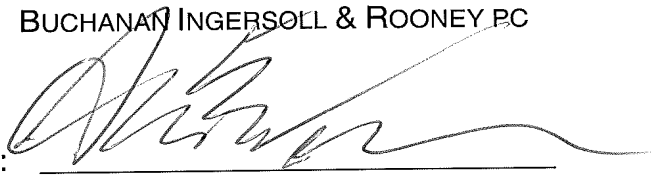
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Respectfully submitted,

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